

Amendments to the Claims

Please cancel original claims 1 through 8 and add the following new claims:

1-8. (Cancelled)

9. (New) An isolated human protein C polypeptide, said polypeptide comprising SEQ ID NO: 2.

10. (New) A recombinant DNA molecule encoding the isolated human protein C polypeptide of Claim 9.

11. (New) The recombinant DNA molecule of Claim 10, wherein said recombinant DNA molecule comprises SEQ ID NO: 1.

12. (New) A vector comprising the nucleic acid of Claim 10.

13. (New) A host cell comprising the nucleic acid of Claim 10.

14. (New) A method of producing a human protein C polypeptide of Claim 9 comprising:

- a) transforming a host cell with a vector containing nucleic acid encoding a human protein C polypeptide;
- b) culturing said host cell in a medium appropriate for expression of said human protein C polypeptide;
- c) isolating said human protein C polypeptide from the culture medium;
and
- d) activating said human protein C polypeptide.

15. (New) An isolated human protein C polypeptide, wherein said polypeptide comprises amino acids 170 through 415 of SEQ ID NO: 2.

16. (New) An activated protein C pharmaceutical formulation, said formulation comprising a mixture of a light chain and a heavy chain, wherein the light chain is selected from the group consisting of:

- a) a human protein C polypeptide comprising amino acids 1 through 155 of SEQ ID NO: 2; and
- b) a human protein C polypeptide comprising amino acids 1 through 155 of SEQ ID NO: 2 with one or more amino acids deleted from the C-terminus;

and a heavy chain selected from the group consisting of:

- a) a human protein C polypeptide comprising amino acids 170 through 415 of SEQ ID NO: 2; and
- b) a native activated protein C heavy chain.

17. (New) A method of treating a condition selected from the group consisting of: protein C deficiencies, thrombotic disorders, stroke, venous thrombosis, thrombosis as a result of peripheral vascular surgery, and microvascular thrombosis, such as disseminated intravascular coagulation associated with sepsis, which comprises administering the formulation of Claim 16 to a patient in need thereof.

18. (New) The method of Claim 17 wherein the method is to treat myocardial infarction.

19. (New) A method of treating vascular occlusive disorders and hypercoagulable states which comprises administering the formulation of Claim 16 to a patient in need thereof.

20. (New) The method of Claim 19 wherein the vascular occlusive disorders and hypercoagulable states are selected from the group consisting of: sepsis, disseminated intravascular coagulation, purpura fulminans, major trauma, major surgery, burns, adult respiratory distress syndrome, transplantations, deep vein thrombosis, heparin-induced thrombocytopenia, sickle cell disease, thalassemia, viral hemorrhagic fever, thrombotic thrombocytopenic purpura, and hemolytic uremic syndrome.

21. (New) The method of Claim 20 wherein the hypercoagulable state is sepsis.

22. (New) A pharmaceutical formulation comprising des (416-419) activated protein C, wherein said formulation has no more than 68% des (416-419) activated protein C.

23. (New) The formulation of Claim 22, wherein said formulation has no more than 57% des (416-419) activated protein C.

24. (New) The formulation of Claim 22, wherein said formulation has no more than 46% des (416-419) activated protein C.

25. (New) The formulation of Claim 22, wherein said formulation has no more than 35% des (416-419) activated protein C.

26. (New) The formulation of Claim 22, wherein said formulation has no more than 26% des (416-419) activated protein C.

27. (New) The formulation of Claim 22, wherein said formulation has no more than 20% des (416-419) activated protein C.

28. (New) The formulation of Claim 22, wherein said formulation has about 1% to about 25% des (416-419) activated protein C.

29. (New) A method of treating a condition selected from the group consisting of: protein C deficiencies, thrombotic disorders, stroke, venous thrombosis, thrombosis as a result of peripheral vascular surgery, and microvascular thrombosis, such as disseminated intravascular coagulation associated with sepsis, which comprises administering the formulation of Claim 28 to a patient in need thereof.

30. (New) The method of Claim 29 wherein the method is to treat myocardial infarction.

31. (New) A method of treating vascular occlusive disorders and hypercoagulable states which comprises administering the formulation of Claim 28 to a patient in need thereof.

32. (New) The method of Claim 31 wherein the vascular occlusive disorders and hypercoagulable states are selected from the group consisting of: sepsis, disseminated intravascular coagulation, purpura fulminans, major trauma, major surgery, burns, adult respiratory distress syndrome, transplantations, deep vein thrombosis, heparin-induced thrombocytopenia, sickle cell disease, thalassemia, viral hemorrhagic fever, thrombotic thrombocytopenic purpura, and hemolytic uremic syndrome.

33. (New) The method of Claim 32 wherein the hypercoagulable state is sepsis.